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Apr. 1939

ROYAL ONTARIO MUSEUM OF ZOOLOGY

TORONTO

WILDLIFE STUDIES

1. A Census of Deer Populations

To anyone interested in the lives of animals under natural conditions, the censuses being made of deer populations in Michigan are of the greatest interest; to those concerned in wildlife management, they are indispensable. The following figures are from a report on "Whitetails", published as a bulletin of the Game Division, Michigan Department of Conservation, October, 1938. These census figures are not mere estimates; they are based on actual counts made with the aid of large numbers of C. C. C. men.

Tracts of land containing average habitat for their particular localities were so selected that there were on three sides open roads or firelines in which deer might be observed as they crossed the openings. Along the three open sides, C. C. C. men (counters) were stationed at intervals of 100 to 300 feet, depending on the topography, in positions which permitted each counter to tally any deer which crossed the line between himself and the man on his left as he stood facing the census area. Across the fourth side, men were stationed at 50 to 60 foot intervals. At a given signal, this latter line of men moved abreast down across the area between the lines of stationary counters. Since 1935, censuses have been conducted each month during the last six months of each year on from 8 to 16 areas in the Upper Peninsula and on from 12 to 16 areas in the Lower Peninsula. The average of the results obtained through this method of sampling has been accepted as representing the average number of deer per square mile in the Upper and Lower Peninsula.

Following is a summary of the numbers of bucks, does and fawns in the Upper and Lower Peninsulas. It should be noted that under present hunting regulations, only one buck may be taken by each hunter.

Upper Peninsula

The entire 16,309 square miles in the Upper Peninsula is considered good summer deer range, furnishing adequate cover and food.

The average deer population is about 18 deer per square mile.

	Percent	Population	
Bucks	18	53,223	
Does	44	130,100	
Fawns	38	112,359	
Total deer			295,682

In spite of the fact that nearly 15,000 bucks are removed by hunters each fall, the fawn crop of over 100,000 each year tends to increase the herd.

Winter deer range in the Upper Peninsula is equal to but eight and four-tenths percent of the summer range, resulting in a winter concentration of deer more than ten times the average summer population per square mile.

A census of starved deer in the Upper Peninsula during the spring of 1938 indicated an average loss in overbrowsed yards of 16.5 deer per square mile, or a total winter loss of 9,600 for the entire Upper Peninsula.

Lower Peninsula

There are approximately 18,200 square miles of deer area in the Lower Peninsula of Michigan. The average deer population indicated by the 1937 deer census is almost 50 deer per square mile.

	Percent	Population	
Bucks	10	87,729	
Does	53	464,966	
Fawns	37	324,598	
Total deer			877,293

There seems abundant summer range and food for Lower Peninsula deer except in a few areas. Winter yarding territories and the amount of food they contain is the factor limiting the maximum size of the deer herd. In the Lower Peninsula, yards constitute three and four-tenths percent of the total deer range. During severe winters, when the deer go into the yards, enormous concentrations and heavy losses result. Approximately 5,000 deer are believed to have died in overpopulated winter yards in 1938.

Suggested Plan for Management of Michigan's Deer Herd

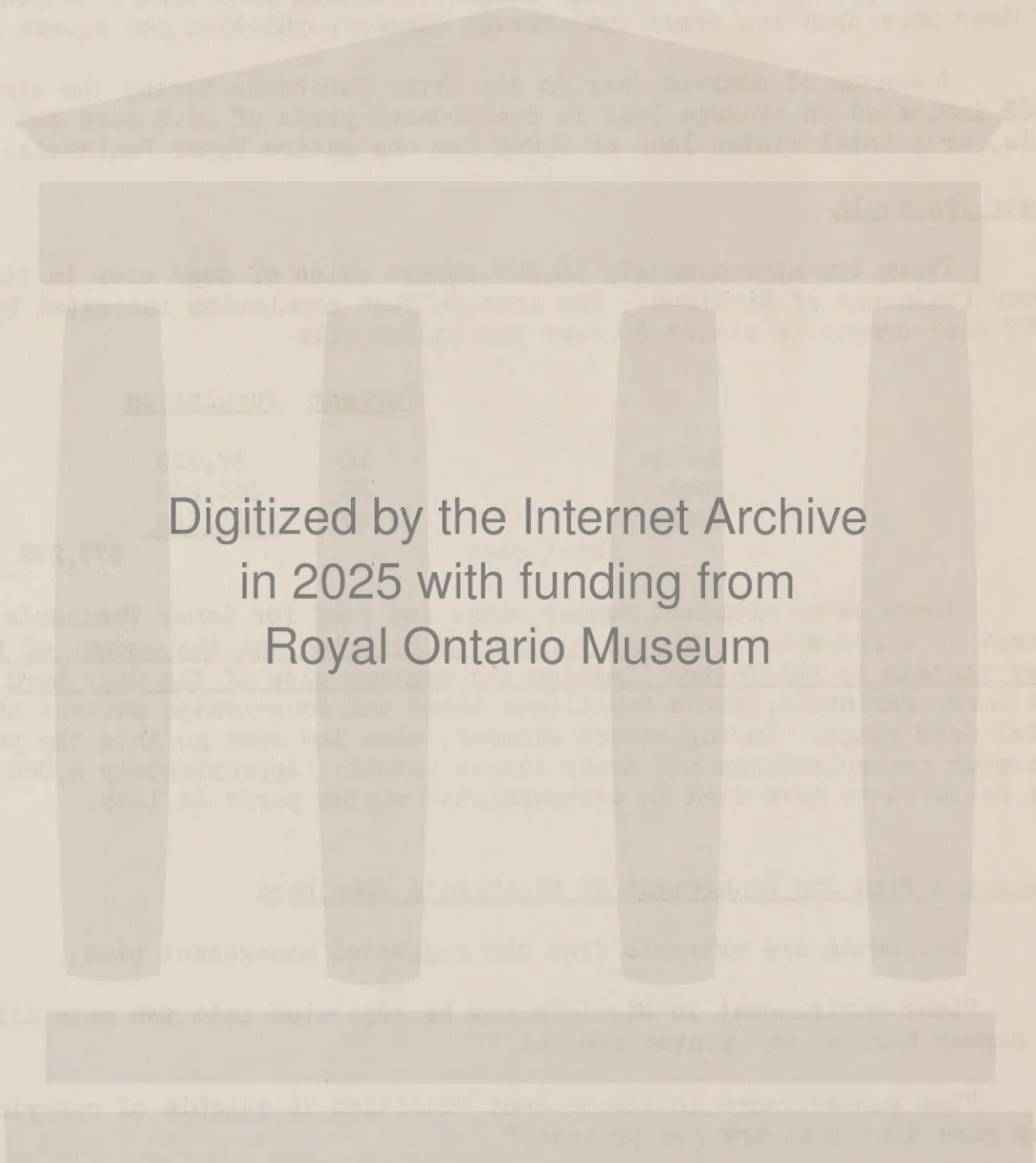
Following are extracts from the suggested management plan.

"Deer environment in Michigan may be separated into two main divisions -- summer habitat and winter habitat."

"The summer range in its present condition is capable of carrying many more deer than are now present."

"With the winter range, the picture is vastly different. The amount and condition of the winter range is the most important factor in maintaining the deer herd . . . . . the deer herd's ability to increase is far greater than the carrying capacity of the winter range."

"Control of the habitat is closely interwoven with the forestry profession, but practices which may be desirable from a forester's viewpoint may not be to the best interests of the deer herd and vice versa. The first



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consideration then is to determine which is of most importance -- the deer herd or the timber. In areas where game management is the first consideration, forest products are of secondary importance. Where the area is being managed for forest products, practices of game management become less important."

"In managing the winter deer yards for the production of more deer, management practices should be directed toward the production of more food. To accomplish this, browse must be kept within reach of the deer. As the available browse is consumed and the lower branches of trees stripped, these trees must be removed to allow reproduction to grow again from the ground. This means cutting the cedar growth on approximately a 25-year rotation. With hardwood browse species, cutting and lopping those tops or shoots which have escaped the deer and have grown up will keep much twig growth coming in from the bottom. These projects must be carried on continually as the trees become mature and are self-pruned or overbrowsed. Mere State ownership of the yarding areas will not help deer-yarding conditions. Manipulation of the winter food is a difficult task; forests cannot be changed in a year as can crops for cattle. Years are required to establish good browse, and if the deer herd is not controlled in coordination, the work of many years may be ruined in one winter."